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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,944	08/05/2002	Dongguyn Kim	7156-101XX	8644

7590 05/19/2005
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EXAMINER

LEMMA, SAMSON B

ART UNIT	PAPER NUMBER
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2132

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/018,944

Applicant(s)

KIM ET AL.

Examiner

Samson B. Lemma

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 August 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 2-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

1. **Claims 1-19** have been examined.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119 (a)-(d), which papers have been placed of record in the file.

Preliminary Amendment

3. The preliminary amendment submitted by the applicant regarding claims 4 and 5 and the new claims 7 and 8 have been considered.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claim 1** is rejected under 35 U.S.C. 102(b) as being anticipated by **Wilson et al.** (hereinafter referred to as **Wilson**) (U.S. Patent No. 5,295,188).

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6. **As per claims 1, Wilson discloses the method for safely transmitting binary information constructed with plural bits through electronic transmission media, [Column 1, lines 30-36; column 5, lines 54-65] (Starting from column 5, lines 54 – column 5, line 65, the following is recited, “turning now to a hardware embodiment of the present invention, and initially referring to FIG. 1, an encryption circuitry 10 is shown for encrypting proprietary binary data, into a ciphertext disguising the data for transmission over an insecure communications channel. The data is represented initially in the form of a serial bit stream”), the method comprising steps of :**

- **Producing a private key including n matrices constructed with $k_1 \times k_2$, when k_1 and k_2 are positive integers, $k_1 \times k_2$ is an integer larger than 3, and n is an integer larger than 2; [Column 3, lines 65-column 4, lines 8]**
- **Producing a public key (matrix sequence a_i) including the n matrices constituted with $k_1 \times k_2$ from the private key; [column 3, lines 65- column 4, lines 4; column 5, lines 45-53] (where K or public key is formed as the matrix product, or consolidation, of a pair of private key binary matrices designated matrix T and matrix M such that $K=T \cdot M$. Public key K is generally used for encryption transforms and digital signature validation while private keys T and M^{-1} are generally used for decryption transforms and digital signature creation.)**
- **Dividing the binary information into n plural bit sequences $E = (e_1, e_2, \dots, e_n)$ in $e \in E(0, 1)$; [column 5, lines 54-65; abstract and column 5, lines 67-column 6, lines 18, column 4, lines 51-61] (The initial block of plaintext data from buffer memory 12 initially is applied to a row selector encoder unit 14, which may be a ROM (read only memory), and ancillary components, the ROM loaded with software and a look-up table for translating and expanding the plaintext data into a larger row selector code, or encoder unit 14 may be electronic in nature, consisting perhaps of an encoder that successively encodes**

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each successive, two-bit segment of the plaintext in accordance with the row selector code and then it will participate in the encryption processes as explained on column 5, lines 67-column 6, lines 18; therefore the encryption is done by successively encoding each successive, two-bit segment before encrypting it and this meets the limitation of dividing the binary information into n plural bit sequence]

- **Encrypting the plurality bit sequence E respectively by using the public key.** [Column 5, lines 6; column 4, lines 51-61; figure 5]
- **Incorporating the encrypted information and forming encrypted transmission data S and transmitting the encrypted data S.**[figure 5, reference "Ciphertext"]
- **Extracting the encrypted transmission data from the encrypted transmission data S by using the private key.** [column 4, lines 62-64; figure 5, reference "Private Key"]

Allowable Subject Matter

7. **Claims 2-8 are objected** to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.(See PTO-Form 892).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samson B Lemma whose telephone number is 571-

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272-3806. The examiner can normally be reached on Monday-Friday (8:00 am---4:30 pm).

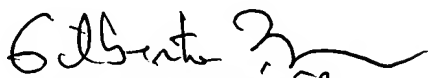
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, BARRON JR GILBERTO can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SAMSON LEMMA

S.L.

05/07/2005


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